Section-A

(Multiple Choice Questions (MCQ's))

Q.1 Choose the correct answer for each from the given options:

(i) The center of gravity of body is a point where ______ acts.
(a) The Torque (b) The external force
(c) The weight of the body (d) None of these

(ii) Which of the following belong to the second kind of lever?
(a) Pair of Scissor (b) Pair of forceps
(c) Door (d) Arm balance

(iii) The waves produced by a vibrating body in air are _____waves.
() Longitudinal (b) Transverse (c) Electromagnetic (d) Magnetic

(iv) If q = 4 cm an dp = 2 cm, then the mangification of the mirror is:
(a) 2 (b) 0.5 (c)4 (d) None of these

(v) If the speed of body moving in circle is doubled it's centripetal acceleration becomes ______.
(a) Twice (b) Four times (c) Eight times (d) None of these

(vi) The energy possessed bya boyd due to its position is called:
(a) Kinetic energy (b) Heat energy
(c) Potential energy (d) None of these

(vii) Elasticity of a substance depends on its:
(a) Temperature (b) Size (c) Nature (d) None of these

(viii) The temperature of substance changes fro -20°C to 20°C . What is the temperature change is kelvin's scale.
(a) 100k (b) 40k (c) 293k (d) None of these

(ix) The materials in which electric current can flow easily due of their low resistance are called _____
(a) Insulators (b) Semiconductors
(c) Conductors (d) None of these

(x) Dr Abdus Salm was awarded Nobel Prize for his work on ______.
(a) Electronics (b) Radiation
(c) Grand unification theory (d) Gravitation

(xi) One meter is equal to ______.
(a) 10^4mm (b) 10^3mm (c) 10^2mm (d) 10^6mm

(xii) ______ is a scalar quantity.
(a) Torque (b) Distance
(c) Momentum (d) Acceleration

(xiii) The unit of coefficient of friction is ________.
(a) Newton (b) Kilogram (c) Meter (d) None

(xiv) When a ray of light enters obliquely from rarer into denser mediu, then an angle of refraction is _____ angle of incidence.
(a) Greater than (b) Smaller than (c) Equal to (d) unrelated to

(xv) According to Hygen's waves theory, light propagates in the shape of ______.
(a) Photons (b) Waves (c) Particles (d) None of these

(xvi) The value of constant that occurs in coulumbs force formula is _____nm^2 / C^2
(a) 9×10^{-9} (b) 9.0×10^{-16} (c) 9.0×10^{9} (d) 9.9×10^{-9}

(xvii) A galvanometer can be convereted into an ammeter by connecting a wire of low resistance ___ with the galvanometer.
(a) In series (b) In parallel
(c) In a combined way (d) In no way

Section-B

(Short Answer)

Note: Answer any EIGHT of the following questions. Each question carries 05 marks.

Q.2 What is Physics? Name of few branches of Physics.
Q.3 What are fundamenetal and derived units?
Q.4 A body starting from rest acquires a velocity of 10 m/s in 5 seconds Calculate the distance coverted by the body in 5 seconds.
Q.5 How can a vector be represented in magnitude and direction both?
Q.6 Define centre of gravity. How would you locate the centre of gravity of an irregular piece of a metal sheet?
Q.7 What is centripetal force? Give examples of a body moving in circular path.
Q.8 A box is pushed 5 m across a level surface by a horizontal force of 200 N, How much work is done on the box?
Q.9 What is an inclined plane and how does it help in doing work?
Q.10 What is atmospheric pressure ? How will you measure it?
Q.11 A car of mass 1000 kg travelling at 72 km/h uniformly brought to rest over a distance of 40 m Find the average acceleration.
Q.12 How is rainbow formed?
Q.13 What do yu understand by capacitor and its capacitance .Define its unit.

Section-C

(Descriptive Answer)

Note: Answer any TWO of the following questions. Each question carries 14 marks.

Q.14(a):State and explain Hooke's law Desribe an experiment to verify Hooke's law
(b) Differentiate between heat and temperature.
Q.15(a) Explain the formation of an image by a plane mirror.
(b) An object is placed at a distance of 30 cm from a concave mirror of focal length 5cm. If the object is 5cm high, find the position and size of the image.
Q16 (a) Explain the Right Hand Rule for the magnetic force.
(b) Explain the working of an Electric Bell.